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EXAMINER	
BELL, MELTIN	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/868,695	ROSENFELD ET AL.	
	Examiner	Art Unit	
	Meltin Bell	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 May 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/29/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to application **09/868,695** filed 09/26/2001 as well as the Amendment filed 4/18/05. Claims 1-18 filed by the applicant have been entered and examined. An action on the merits of claims 1-18 appears below.

Priority

Acknowledgment is made of applicant's claim for priority based on application 09/218,945 filed in the United States on **12/22/98**.

Claim Rejections - 35 USC § 103

Applicant's arguments have been fully considered, but are moot in view of new grounds of rejection. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Office presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Office to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 4-6, 8-10, 13-15 and 17-18 are rejected under 35 U.S.C. 103(a) as being obvious over *Cook et al* WO 97/44766 A1 "Agent Based Instruction System and Method" W.I.P.O. International Publication Number (Publication Date November 27, 1997) in view of *Kessler* "A client-side stub interpreter" (August 1994).

Regarding claim 1:

Cook et al teaches, (a) receiving information indicative of a goal (page 55, lines 16-34, "On-screen Agent area ... the current request"; page 56, Table 1B), the goal being associated with a student in a specific task (page 52, lines 18-37, "An important screen ... display to a student"; page 53, Table 1, Figs. 3-4), (b) integrating information that motivates accomplishment of the goal for use in a presentation (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors"; page 8, lines 33-37, "Another important object ... appear as living"; page 9, lines 1-4, "entities, which in ... guides its student") and (d) evaluating progress toward the goal (page 10, lines 24-31, "A further important...student's pedagogic characteristics") and providing feedback that further motivates accomplishment of the goal (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors"). However, *Cook et al* doesn't explicitly teach (c) managing information flow utilizing a table of components, wherein each component encapsulates

behavior and data necessary to support a related set of services while *Kessler* teaches (c) managing information flow (page 99, section 5.2, paragraph 2, "The client-side stub ... the normal stubs"; page 100, left column, paragraph 1, "would have to ... the desired properties") utilizing a table (page 97, section 3.2, paragraph 1, "Basic types can ... next table slot") of components (page 94, section 1, paragraph 1, "Spring is a ... of other services"), wherein each component encapsulates behavior and data necessary to support a related set of services.

Motivation – The portions of the claimed computer-readable medium would have been a highly desirable feature in this art for replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter (*Kessler*, page 99, section 5.2, paragraph 1, "We are replacing ... would be prohibitive"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Kessler* for the purpose of replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter.

Regarding claim 4:

The rejection of claim 4 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references: instantiating a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to analyze progress and determine appropriate feedback (*Cook et al*, page 10, lines 24-32, "A further important...their educational tasks"; page 20, lines 4-28, "the student can ... for the teachers")

Regarding claim 5:

The rejection of claim 5 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references: instantiating a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to evaluate options and present appropriate feedback to assist the student to achieve the goal (*Cook et al*, page 63, lines 1-16, "the ABI system ... of task scheduling")

Regarding claim 6:

The rejection of claim 6 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references: instantiating a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to simulate a business application (*Cook et al,* page 5, lines 10-29, "adaptive and personalized ... concerning similar problems"; page 12, lines 3-10, "An object of...computer-assisted instruction systems"; page 109, Table 3)

Regarding claim 8:

The rejection of claim 8 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references: instantiating a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to interact with the student utilizing rule-based logic (*Cook et al,* page 46, lines 8-12, "during access to...caught and rejected")

Regarding claim 9:

The rejection of claim 9 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references: instantiating a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to present a time based simulation (*Cook et al,* page 24, lines 7-25, "The corresponding event...the time elapsed"; page 63, lines 1-16, "the ABI system...of task scheduling"; page 109, Table 3; page 124, lines 2-12, "These named display...to generate displays")

Regarding claim 10:

Cook et al teaches (a) a processor (page 29, lines 19-22, "a preferable student ... or the Internet"), (b) a memory that stores information under the control of the processor (page 29, lines 15-17, "student client system...a backing store"), (c) logic that integrates information that motivates accomplishment of the goal for use in the presentation (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors"; page 8, lines 33-37, "Another important object ... appear as living"; page 9, lines 1-4, "entities, which in ... guides its student"), the goal being associated with a student in a specific task (page 52, lines 18-37, "An important screen ... display to a student"; page 53, Table 1, Figs. 3-4) and (e) logic that evaluates progress toward the goal (page 10, lines 24-31, "A further important...student's pedagogic characteristics"). However, *Cook et al* doesn't explicitly teach (d) logic that manages information flow utilizing a table of components, wherein each component encapsulates behavior and data necessary to support a related set of services while *Kessler* teaches (d) logic that manages information flow

(page 99, section 5.2, paragraph 2, "The client-side stub ... the normal stubs"; page 100, left column, paragraph 1, "would have to ... the desired properties") utilizing a table (page 97, section 3.2, paragraph 1, "Basic types can ... next table slot") of components (page 94, section 1, paragraph 1, "Spring is a ... of other services"), wherein each component encapsulates behavior and data necessary to support a related set of services.

Motivation – The portions of the claimed apparatus would have been a highly desirable feature in this art for replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter (*Kessler*, page 99, section 5.2, paragraph 1, "We are replacing ... would be prohibitive"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Kessler* for the purpose of replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter.

Regarding claim 13:

The rejection of claim 13 is similar to that for claim 10 as recited above since the stated limitations of the claim are set forth in the references: logic that instantiates a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to analyze progress and determine appropriate feedback (*Cook et al,* page 10, lines 24-32, "A further important...their educational tasks"; page 20, lines 4-28, "the student can ... for the teachers").

Regarding claim 14:

The rejection of claim 14 is similar to that for claim 10 as recited above since the stated limitations of the claim are set forth in the references: logic that instantiates a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to evaluate options and present appropriate feedback to assist the student to achieve the goal (*Cook et al*, page 63, lines 1-16, "the ABI system ... of task scheduling")

Regarding claim 15:

The rejection of claim 15 is similar to that for claim 10 as recited above since the stated limitations of the claim are set forth in the references: logic that instantiates a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to simulate a business application (*Cook et al,* page 5, lines 10-29, "adaptive and personalized ... concerning similar problems"; page 12, lines 3-10, "An object of...computer-assisted instruction systems"; page 109, Table 3)

Regarding claim 17:

The rejection of claim 17 is similar to that for claim 10 as recited above since the stated limitations of the claim are set forth in the references: logic that instantiates a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to interact with the student utilizing rule-based logic (*Cook et al,* page 46, lines 8-12, "during access to...caught and rejected")

Regarding claim 18:

The rejection of claim 18 is similar to that for claim 10 as recited above since the stated limitations of the claim are set forth in the references: logic that instantiates a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to present a time based simulation (*Cook et al,* page 24, lines 7-25, "The corresponding event...the time elapsed"; page 63, lines 1-16, "the ABI system...of task scheduling"; page 109, Table 3; page 124, lines 2-12, "These named display...to generate displays")

Claims 2-3 and 11-12 are rejected under 35 U.S.C. 103(a) as being obvious over *Cook et al* in view of *Kessler* and in further view of *Chaib-draa* "Industrial applications of distributed AI" (November 1995).

Regarding claim 2:

Cook et al teaches, (a) receiving information indicative of a goal (page 55, lines 16-34, "On-screen Agent area ... the current request"; page 56, Table 1B), the goal being associated with a student in a specific task (page 52, lines 18-37, "An important screen ... display to a student"; page 53, Table 1, Figs. 3-4), (b) integrating information that motivates accomplishment of the goal for use in a presentation (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors"; page 8, lines 33-37, "Another important object ... appear as living"; page 9, lines 1-4, "entities, which in ... guides its student") and (d) evaluating progress toward the goal (page 10, lines 24-31, "A further important...student's pedagogic characteristics") and providing feedback that further

motivates accomplishment of the goal (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors"). However, *Cook et al* doesn't explicitly teach (c) managing information flow utilizing a table of components, wherein each component encapsulates behavior and data necessary to support a related set of services and the step of instantiating a component from the table of components to measure progress toward the goal while *Kessler* teaches (c) managing information flow (page 99, section 5.2, paragraph 2, "The client-side stub ... the normal stubs"; page 100, left column, paragraph 1, "would have to ... the desired properties") utilizing a table (page 97, section 3.2, paragraph 1, "Basic types can ... next table slot") of components (page 94, section 1, paragraph 1, "Spring is a ... of other services"), wherein each component encapsulates behavior and data necessary to support a related set of services and the step of instantiating a component from the table of components (page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") and *Chaib-draa* teaches components (page 49, text under tic-tac-toe icon/figure, "Distributed artificial intelligence helps far-flung, often stand-alone application components work toward a common goal") to measure progress toward the goal (page 49, last paragraph, "Real-time embedded applications ... aircraft system data" and page 50, left column, paragraph 1, "From this presentation ... approval and execution").

Motivation – The portions of the claimed computer-readable medium would have been a highly desirable feature in this art for replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter (*Kessler*, page 99, section 5.2, paragraph 1, "We are replacing ... would be prohibitive") and coordinating intelligent

behaviors among a collection of autonomous agents (*Chaib-draa*, page 51, paragraph 3, "In MAS, the ... can become chaotic"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Kessler* and *Chaib-draa* for the purpose of replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter and coordinating intelligent behaviors among a collection of autonomous agents.

Regarding claim 3:

The rejection of claim 3 is similar to that for claim 2 as recited above since the stated limitations of the claim are set forth in the reference: the step of instantiating a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") to interrupt and interview the student (*Cook et al,* page 59, lines 12-30, "This illustration begins ... student's recent error") to obtain information to measure progress toward the goal (*Chaib-raa*, page 49, last paragraph, "Real-time embedded applications ... aircraft system data" and page 50, left column, paragraph 1, "From this presentation ... approval and execution") and determine appropriate feedback.

Regarding claim 11:

Cook et al teaches (a) a processor (page 29, lines 19-22, "a preferable student ... or the Internet"), (b) a memory that stores information under the control of the processor (page 29, lines 15-17, "student client system...a backing store"), (c) logic that integrates information that motivates accomplishment of the goal for use in the presentation (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors"; page 8, lines 33-37,

"Another important object ... appear as living"; page 9, lines 1-4, "entities, which in ... guides its student"), the goal being associated with a student in a specific task (page 52, lines 18-37, "An important screen ... display to a student"; page 53, Table 1, Figs. 3-4) and (e) logic that evaluates progress toward the goal (page 10, lines 24-31, "A further important...student's pedagogic characteristics"). However, *Cook et al* doesn't explicitly teach (d) logic that manages information flow utilizing a table of components, wherein each component encapsulates behavior and data necessary to support a related set of services and logic that instantiates a component from the table of components to measure progress toward the goal while *Kessler* teaches (d) logic that manages information flow (page 99, section 5.2, paragraph 2, "The client-side stub ... the normal stubs"; page 100, left column, paragraph 1, "would have to ... the desired properties") utilizing a table (page 97, section 3.2, paragraph 1, "Basic types can ... next table slot") of components (page 94, section 1, paragraph 1, "Spring is a ... of other services"), wherein each component encapsulates behavior and data necessary to support a related set of services and logic that instantiates a component from the table of components (page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") and *Chaib-draa* teaches components (page 49, text under tic-tac-toe icon/figure, "Distributed artificial intelligence helps far-flung, often stand-alone application components work toward a common goal") to measure progress toward the goal (page 49, last paragraph, "Real-time embedded applications ... aircraft system data" and page 50, left column, paragraph 1, "distilling the data ... approval and execution").

Motivation – The portions of the claimed apparatus would have been a highly desirable feature in this art for replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter (*Kessler*, page 99, section 5.2, paragraph 1, "We are replacing ... would be prohibitive") and coordinating intelligent behaviors among a collection of autonomous agents (*Chaib-draa*, page 51, paragraph 3, "In MAS, the ... can become chaotic"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Kessler* for the purpose of replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter and coordinating intelligent behaviors among a collection of autonomous agents.

Regarding claim 12:

Cook et al teaches (a) a processor (page 29, lines 19-22, "a preferable student ... or the Internet"), (b) a memory that stores information under the control of the processor (page 29, lines 15-17, "student client system...a backing store"), (c) logic that integrates information that motivates accomplishment of the goal for use in the presentation (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors"; page 8, lines 33-37, "Another important object ... appear as living"; page 9, lines 1-4, "entities, which in ... guides its student"), the goal being associated with a student in a specific task (page 52, lines 18-37, "An important screen ... display to a student"; page 53, Table 1, Figs. 3-4), (e) logic that evaluates progress toward the goal (page 10, lines 24-31, "A further important...student's pedagogic characteristics") and logic to interrupt and interview the student (*Cook et al,* page 59, lines 12-30, "This illustration begins ... student's recent

error") and determine appropriate feedback. However, *Cook et al* doesn't explicitly teach (d) logic that manages information flow utilizing a table of components, wherein each component encapsulates behavior and data necessary to support a related set of services and logic that instantiates a component from the table of components to interrupt and interview the student to obtain information to measure progress toward the goal and determine appropriate feedback while *Kessler* teaches (d) logic that manages information flow (page 99, section 5.2, paragraph 2, "The client-side stub ... the normal stubs"; page 100, left column, paragraph 1, "would have to ... the desired properties") utilizing a table (page 97, section 3.2, paragraph 1, "Basic types can ... next table slot") of components (page 94, section 1, paragraph 1, "Spring is a ... of other services"), wherein each component encapsulates behavior and data necessary to support a related set of services and logic that instantiates a component from the table of components (page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") and *Chaib-draa* teaches components (page 49, text under tic-tac-toe icon/figure, "Distributed artificial intelligence helps far-flung, often stand-alone application components work toward a common goal") to obtain information to measure progress toward the goal (page 49, last paragraph, "Real-time embedded applications .... aircraft system data" and page 50, left column, paragraph 1, "distilling the data ... approval and execution").

Motivation – The portions of the claimed apparatus would have been a highly desirable feature in this art for replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter (*Kessler*, page 99, section 5.2, paragraph 1,

"We are replacing ... would be prohibitive") and coordinating intelligent behaviors among a collection of autonomous agents (*Chaib-draa*, page 51, paragraph 3, "In MAS, the ... can become chaotic"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Kessler* for the purpose of replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter and coordinating intelligent behaviors among a collection of autonomous agents.

Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being obvious over *Cook et al* in view of *Kessler* and in further view of *Purcell* USPN 5,727,161 "Method and apparatus for graphic analysis of variation of economic plans" (March 10, 1998).

Regarding claim 7:

Cook et al teaches, (a) receiving information indicative of a goal (page 55, lines 16-34, "On-screen Agent area ... the current request"; page 56, Table 1B), the goal being associated with a student in a specific task (page 52, lines 18-37, "An important screen ... display to a student"; page 53, Table 1, Figs. 3-4), (b) integrating information that motivates accomplishment of the goal for use in a presentation (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors"; page 8, lines 33-37, "Another important object ... appear as living"; page 9, lines 1-4, "entities, which in ... guides its student") and (d) evaluating progress toward the goal (page 10, lines 24-31, "A further important...student's pedagogic characteristics") and providing feedback that further motivates accomplishment of the goal (page 8, lines 1-15, "it accepts data...appropriate

candidate behaviors"). However, *Cook et al* doesn't explicitly teach (c) managing information flow utilizing a table of components, wherein each component encapsulates behavior and data necessary to support a related set of services and instantiating a component from the table of components to interact with a quantitative analysis model to perform what-if analysis while *Kessler* teaches (c) managing information flow (page 99, section 5.2, paragraph 2, "The client-side stub ... the normal stubs"; page 100, left column, paragraph 1, "would have to ... the desired properties") utilizing a table (page 97, section 3.2, paragraph 1, "Basic types can ... next table slot") of components (page 94, section 1, paragraph 1, "Spring is a ... of other services"), wherein each component encapsulates behavior and data necessary to support a related set of services and instantiating a component from the table of components (page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") and *Purcell* teaches components to interact with a quantitative analysis model (column 33, lines 5-24, "FIG. 34 is an illustration ... easily and fully") to perform what-if analysis (Abstract, "Graphic analyses are ... to what-if possibilities"; Fig. 6).

Motivation – The portions of the claimed computer-readable medium would have been a highly desirable feature in this art for replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter (*Kessler*, page 99, section 5.2, paragraph 1, "We are replacing ... would be prohibitive") and graphically developing and displaying what-if scenarios derived from spreadsheet plan-model data entered by a user (*Purcell*, column 2, lines 44-64, "Hence, it would ... thresholds of risks").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made, to modify *Cook et al* as taught by *Kessler* and *Purcell* for the purpose of replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter as well as graphically developing and displaying what-if scenarios derived from spreadsheet plan-model data.

Regarding claim 16:

Cook et al teaches (a) a processor (page 29, lines 19-22, "a preferable student ... or the Internet"), (b) a memory that stores information under the control of the processor (page 29, lines 15-17, "student client system...a backing store"), (c) logic that integrates information that motivates accomplishment of the goal for use in the presentation (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors"; page 8, lines 33-37, "Another important object ... appear as living"; page 9, lines 1-4, "entities, which in ... guides its student"), the goal being associated with a student in a specific task (page 52, lines 18-37, "An important screen ... display to a student"; page 53, Table 1, Figs. 3-4) and (e) logic that evaluates progress toward the goal (page 10, lines 24-31, "A further important...student's pedagogic characteristics"). However, *Cook et al* doesn't explicitly teach (d) logic that manages information flow utilizing a table of components, wherein each component encapsulates behavior and data necessary to support a related set of services and logic that instantiates a component from the table of components to interact with a quantitative analysis model to perform what-if analysis while *Kessler* teaches (d) logic that manages information flow (page 99, section 5.2, paragraph 2, "The client-side stub ... the normal stubs"; page 100, left column, paragraph 1, "would have to ... the desired properties") utilizing a table (page 97,

section 3.2, paragraph 1, "Basic types can ... next table slot") of components (page 94, section 1, paragraph 1, "Spring is a ... of other services"), wherein each component encapsulates behavior and data necessary to support a related set of services and logic that instantiates a component from the table of components (*Kessler,* page 95, section 2, paragraph 3, "Figure 1 shows a ... than the example") and *Purcell* teaches components to interact with a quantitative analysis model (column 33, lines 5-24, "FIG. 34 is an illustration ... easily and fully") to perform what-if analysis (Abstract, "Graphic analyses are ... to what-if possibilities"; Fig. 6).

Motivation – The portions of the claimed apparatus would have been a highly desirable feature in this art for replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter (*Kessler*, page 99, section 5.2, paragraph 1, "We are replacing ... would be prohibitive") and graphically developing and displaying what-if scenarios derived from spreadsheet plan-model data entered by a user (*Purcell*, column 2, lines 44-64, "Hence, it would ... thresholds of risks"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Kessler* and *Purcell* for the purpose of replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter as well as graphically developing and displaying what-if scenarios derived from spreadsheet plan-model data.

RESPONSE TO APPLICANTS' AMENDMENT REMARKS

Applicant's previous amendment to the title is noted: "A Goal Based System, Utilizing a Table Based Architecture" (Amendment REMARKS page 5, paragraph 4). Also, please find with this action numerous corrections made in reconsidering applicant's 4/29/04 Information Disclosure Statements (IDSs): 1993 for McArthur's "The Roles of Artificial Intelligence in Education" year of publication (supported by http://www.rand.org/cgi-bin/Abstracts/ordi/getabbydoc.pl?doc=DRU-472), for example.

Claims Objection

Applicant argues that the amendment to claim 10 removes the grounds for objection (Amendment REMARKS page 5, paragraph 5). Applicant's arguments have been fully considered and are persuasive. The objection to claim 10 is withdrawn.

Claim Rejections - 35 USC § 103

Applicant argues that *Farley et al* USPN 5,257,185 does not teach or suggest claim 1 and 10's utilizing a table of components (Amendment REMARKS page 6, paragraphs 1-2). Applicant's arguments have been fully considered, but are moot in view of new grounds of rejection. The examiner agrees that *Cook et al* and *Farley et al* taken either individually or in combination do not disclose the table of components.

However, *Kessler* "A client-side stub interpreter" page 99, section 5.2, paragraph 2, page 100, left column, paragraph 1, page 97, section 3.2, paragraph 1 and page 94, section 1, paragraph 1 is cited individually and in combination with *Cook et al* for

explicitly and inherently disclosing the subject matter set forth in the claims 1 and 10 by the applicants: managing and logic that manages information flow utilizing a table of components, wherein each component encapsulates behavior and data necessary to support a related set of services, for example. Further, the purpose and motivation for modifying *Cook et al* by and in combination with other references include replacing a large number of normal C++ client-side stub methods with a single client-side stub interpreter (*Kessler*, page 99, section 5.2, paragraph 1).

Applicant argues that *Farley et al* combined with *Cook et al* WO 97/44766 cannot teach elements of claims 2-6, 8-9, 11-15 and 17-18: instantiating a component from a table of components to measure progress toward the goal, for example (Amendment REMARKS page 6, last paragraph and page 7, paragraphs 1-2). Applicant's arguments have been fully considered, but are moot in view of new grounds of rejection. The examiner agrees that *Kessler* page 95, section 2, paragraph 3 and *Chaib-draa* "Industrial applications of distributed AI" page 49, text under tic-tac-toe icon/figure, page 49, last paragraph and page 50, left column, paragraph 1 in combination with Cook et al teach each and every limitation of claims 2-6, 8-9, 11-15 and 17-18: instantiating a component from a table of components (*Kessler*) to measure progress toward the goal (*Chaib-raa*), for example. Further, the purpose and motivation for modifying *Cook et al* by and in combination with other references include coordinating intelligent behaviors among a collection of autonomous agents (*Chaib-draa*, page 51, paragraph 3).

Applicant argues that *Purcell* USPN 5,727,161 does not make up for the deficiencies of *Cook et al* and *Farley et* al in regards to claims 7 and 16 and requests

reconsideration (Amendment REMARKS page 7, last paragraph). The examiner agrees and has reconsidered claims 7 and 16 in light of *Cook et al, Kessler* and *Purcell* as given in the above rejection of claims under 35 USC 103. Further, the purpose and motivation for modifying *Cook et al* by and in combination with other references include graphically developing and displaying what-if scenarios derived from spreadsheet plan-model data entered by a user (*Purcell*, column 2, lines 44-64, "Hence, it would ... thresholds of risks").

As set forth above with regards to *Cook et al, Kessler, Chaib-raa* and *Purcell*, the items listed explicitly and inherently teach each element of the applicants' claimed limitations. Applicants have not set forth any distinction or offered any dispute between the claims of the subject application, *Cook et al's* Agent Based Instruction System and Method, *Kessler's* A client-side stub interpreter, *Chaib-draa's* Industrial applications of distributed AI and *Purcell's* Method and apparatus for graphic analysis of variation of economic plans.

Conclusion

The following prior art made of record is considered pertinent to applicant's disclosure:

- *Tsukagoshi*; US 5051923; Knowledge inferential processing apparatus
- *Stanley* et al; US 20020198858; System, method, software architecture, and business model for an intelligent object based information technology platform
- *Shteyn*; US 6434447; Control property is mapped modally compatible GUI element

- *Ho et al*; US 5836771 A; Learning method and system based on questioning

- *Bell et al*; US 6014134; Network based intelligent tutoring system

- *JENNINGS*; EP 788065 A2; Apparatus and method for specifying presentation of multimedia message components

- *Atkinson et al*; Special issue on persistent object systems: Orthogonally persistent object systems; The International Journal on Very Large Data Bases; Vol. 4, Is. 3; July 1995; pp 319-401

- *Bowyer et al*; Ten questions that arose in designing the Djinn API for solid modelling; International Conference on Shape Modeling and Applications Proceedings; 3-6 March 1997; pp 71-76

- *Rothering*; Development of an OO infrastructure for mainframe database applications; ACM SIGPLAN Notices; Proceedings of the ninth annual conference on Object-oriented programming systems, language, and applications; Vol. 29, Is. 10; October 1994; pp 205-211

- *Kingma*; International Search Report; completed 18 October 1999, 03/11/1999 date of mailing

- *Simonini*; PCT International Preliminary Examination Report; completed 26.03.2001, 24/07/2000 date of submission of the demand

Any inquiry concerning this communication or earlier communications from the Office should be directed to Meltin Bell whose telephone number is 571-272-3680. This Examiner can normally be reached on Mon - Fri 7:30 am - 4:00 pm.

If attempts to reach this Examiner by telephone are unsuccessful, his supervisor, Anthony Knight, can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MB
July 6, 2005

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